## In the Claims:

The following claims listing supercedes all prior listings.

1. (Currently Amended) A method of processing images in images comprising curvilinear
structures, the method comprising the following parallel-steps of:
a step of filtering said images;
a decision step intended to select the selecting pixels within said
images of the image pertaining to aun interesting curvilinear structure, and
said method being characterized in that the decision step comprises, in
parallel, a sub-step of estimating athe direction of each image pixel and as well as a sub-
step of analyzing athe connectivity of neighboring pixels based on the estimated their
directions for each said image pixel, and
at the end of the sub step of estimating the direction of each image pixel,
and a sub-step of selecting groups of image pixels as a function of the result of saidsub-
stop of analyzing the connectivity of neighboring pixels based on their directions, at the
end of said step of filtering.

- 2. (Currently Amended) A method of processing images as claimed in claim 1, wherein the step characterized in that said step of filtering said images further comprises a step of comprises a sub-step of selecting pixels, the selected pixels of an image being those that have displaying a contrast which is larger than X times athe variance of the noise in the image, where X isbeing a user-adjustable parameter.
- 3. (Currently Amended) A method of processing images as claimed in claim 1, wherein characterized in that said step of filtering said images uses two neighborhoods (N1) and (N2), of a given pixel, wherein athe gap (GAP) extending between these neighborhoods is being user-adjustable.
- 4. (Currently Amended) A method of processing images as claimed in claim 3, wherein a characterized in that the height (H) and athe length (L) of said neighborhoods are adjustable user adjustable.

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- 5. (Currently Amended) A method of processing images as claimed in claim 1, whereincharacterized in that said stepsub-step of analyzing the connectivity of neighboring pixels based on their directions uses a neighborhood of a given pixel, which this neighborhood extends extending in the direction of the pixel considered and, this direction being determined during the stepsaid sub-step of estimating the direction of each pixel of the image.
- 6. (Currently Amended) A method of processing images as claimed in claim 5, wherein characterized in that the length of said neighborhood is adjustable user adjustable.
- 7. (Currently Amended) A method of processing images as claimed in claim 1, wherein the step of selecting characterized in that said sub-step of selecting groups of pixels uses an adjustable user adjustable parameter M, which this parameter M allowsellowing computation of athe minimal sum of contrasts of the pixels of a given group required for thethis group to be selected.

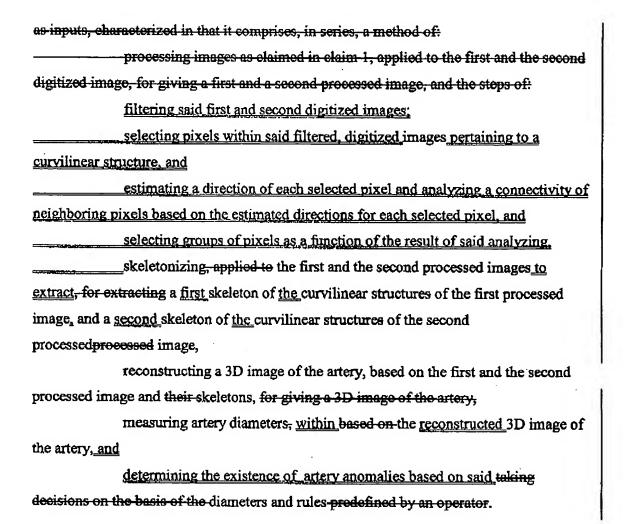
8. (Currently A including:	amended) A method of processing images as claimed in claim 1, further	
NAME AND ADDRESS OF THE PARTY O	intended to dotest artery anomalies, characterized in that it further	
comprises the steps of:		
	skeletonizing said images to for extracting a skeleton of curvilinear	
structures,		
,	measuring artery diameters of arteries found in said skeletonized images,	
	detecting arterial anomaliestaking decisions on the basis of the diameters	
and rules-predefined rules by an operator.		
9. (Currently Amended) A method of processing images, comprising the steps of:		
(	with the steps of	

least a first digitized image and a second digitized image of an the same artery to be

acquiring intended to detect artery anomalies in three dimensions; having at

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analyzed for artery anomalies,



10. (Currently Amended) A computer readable medium comprising a set of computer readable instructions, which computer readable instructions may be processed by a computer to implement program which can be carried out by means of a processor.

intended to perform a method of processing images as claimed in claim 1.

11. (Currently Amended) An image-processing system comprising a programmable computer programmed with a set of instructions for carrying out the method as set forth in claim 1, including intended to perform a computer program as claimed in claim 10, or a circuit intended to perform the method of processing-images as claimed in any one of claims 1 to 9, a device for projecting images processed thereby, and in accordance with said method and possibly a device for storing said images.

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12. (Cancelled)